Jameco Part number 155310

RE: 125284

ALPHA PHOTONICS, INC.

645nm VISIBLE LASER DIODE
MODEL NUMBER: APLD645-51

The APLD645-51 is a red visilbe laser diode designed to draw low current with a lasing wavelength of 645nm. The low power consumption is ideal for an application that has limited power source.

FEATURES:

* 5.6mm packaging
* Low operating current
* 645nm lasing wavelength
* AlGalnP MQW structure
* PIN photo diode for monitoring laser output

OPTICAL AND ELECTRICAL CHARACTERISTICS (Tc=25°C)

	Symobl	Min	Typ	Max	Test Conditions
Optical Output Power (mW)	Po	---	---	7	Kink free
Threshold current (mA)	Ith	15	20	26	
Operating current (mA)	Iop	---	25	45	Po= 5mW
Operating voltage (V)	Vop	---	---	2.3	Po= 5mW
Lasing wavelength (nm)	λp	635	645	655	Po= 5mW
Beam divergence (Degree)	$\theta_{\parallel}$	5	8	11	Po= 5mW
Beam divergence (Degree)	$\theta_{\perp}$	25	31	37	Po= 5mW
Off Axis Angle (Degree)	$\Delta\theta_{\parallel}$	---	---	±3	Po= 5mW
Off Axis Angle (Degree)	$\lambda\theta$	---	---	±3	Po= 5mW
Monitor current (μA)	Im	---	13	---	Po= 5mW
					VR=5V
Astingmatism (μm)	A5	---	11	---	Po= 5mW
					NA=0.4

ABSOLUTE MAXIMUM RATINGS (Tc=25°C)

	SYMBOL	RATED VALUE
Optical output power (mW)	Po	5
LD reverse voltage (V)	VR(LD)	2
PD reverse voltage (V)	VR(PD)	30
Operating temperature (°C)	Topr	-10 to +50
Storage temperature (°C)	Tstg	-40 to +85

PIN CONNECTION: